

Energy Resource Guide

Actions for Municipalities

Compiled by
Connecticut Department Of Environmental Protection
Office of Pollution Prevention
(860)-424-3297
www.dep.state.ct.us/wst/p2

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- Energy Efficiency Strategies and Contacts
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ENERGY EFFICIENCY—Lighting	
<p>LED Traffic Signal Lights Replace incandescent traffic signal lights with Light Emitting Diodes (LED).</p>	<p>LEDs use approximately 85% less energy, are brighter, and longer lasting than incandescents; plus, they have a payback of between 2 to 3.5 years. A number of towns have implemented this strategy for their intersections: Stamford, Hamden, Hartford, and New Haven.</p> <p>To purchase environmentally preferable traffic signals through the State, contact:</p> <ul style="list-style-type: none"> • CT Department of Administrative Services Barbara Moser, Environmental Purchasing (860)-713-5081, barbara.moser@po.state.ct.us www.das.state.ct.us/Purchase/Epp/Contracts.asp <p>All the state managed traffic signals in CT have been switched over to LEDs. (All roads where state road meets state road and where state road meets town road are state managed.) NOTE: CT has a lot of different traffic signal specifications compared with the other New England states because CT traffic lights "dangle" off the wires. For example, CT signals must pass wind tests, to ensure that they are visible during bad weather conditions.</p> <p>For technical assistance contact:</p> <ul style="list-style-type: none"> • CT Department of Transportation (DOT) Jim Nesci, (860) 258-0347
<p>Utility Energy Programs Improve lighting efficiency, load management, conservation for new construction and</p>	<ul style="list-style-type: none"> • United Illuminating (UI) service area municipalities may access either of two UI energy efficiency programs, depending on the application. For general information: www.uinet.com/ <p><u>Commercial and Industrial Energy Efficiency Programs</u> Roy W. Haller, (203)-499-2025</p>

<p>municipal buildings, and rebates for motors, HVAC and lighting improvements.</p>	<p><u>Residential Energy Efficiency Programs</u> Ed Schmidt, (203)-499-2873</p> <ul style="list-style-type: none"> • Connecticut Light & Power (CL &P) service area municipalities may access either of two CL & P contacts, the commercial and industrial programs or the residential programs supervisor. For general information: www.cl-p.com, 1-877-602-SAVE (7283) <p><u>Commercial and Industrial Energy Efficiency</u> Hollis McKee, (860)-832-4805</p> <p><u>Residential Energy Efficiency</u> Cathy Lezon, (860)-832-4956</p>
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ENERGY EFFICIENCY—Buildings

Benchmark Energy Performance



Use Energy Star Benchmarking to identify opportunities to reduce energy usage in municipal buildings.

ENERGY STAR is a government-backed program of the U.S. Department of Energy (DOE) and U.S. Environmental Protection Agency (EPA) helping businesses and individuals protect the environment through superior energy efficiency.

- EnergyStar Benchmarking information and contacts are available at www.energystar.gov
- Portfolio Manager, the EnergyStar benchmarking program, may be accessed from the EnergyStar website.
- No-cost, internet-based training about new building design and other resources from ENERGY STAR is available at:
- www.energystar.gov/index.cfm?c=business.bus_internet_presentations

The **Institute for Sustainable Energy** at Eastern CT State University has helped the following CT towns to perform EnergyStar benchmarking studies for:

- Municipal buildings in Windham and Derby
- Schools and public offices in Stamford, Hartford and Essex
- Waterford schools with the help of high school students.

To access this program for your town contact:

- **Institute for Sustainable Energy**
William Leahy, (860)-465-0251
www.easternct.edu/depts/sustainenergy/

ENERGY EFFICIENCY—Buildings, continued

Green High Performance Buildings

meet high standards for energy efficiency and water conservation, indoor air quality, site development, and use of materials.

LEED —Leadership in Energy and Environmental Design Green Building Rating System[®] is a voluntary, consensus-based national standard for developing high-performance, sustainable buildings.

U.S. Green Building Council

- For more details about the LEED standard, and a list of registered projects: www.usgbc.org/

CT Green Building Council

- Contact: Kim Trella at CT DEP, (860)-424-3234, kim.trella@po.state.ct.us, www.ctgbc.org

K-12 Green Schools

Hamden Middle School has registered with the US Green Building Council as a LEED project, the first LEED-registered public school in CT. Contact:

- Hamden Natural Resources Open Space Commission
Martin Mador, (203)-281-4326, martin.mador@aya.yale.edu

Green Colleges

A number of CT state colleges are following the LEED guidelines in building residence halls, as well as academic buildings and labs. Contact:

- CT Department of Public Works
Bruce Bockstael, CT Chief Architect, (860)-713-5630
bruce.bockstael@po.state.ct.us

Green Commercial Buildings

- Mark Twain Museum Center-first LEED certified CT building and first museum in US. Key feature: The overall energy efficiency of Mark Twain HVAC system is nearly 30 percent greater than a system designed to building code.
www.marktwainhouse.org/museumcenter/leeds.shtml
- Pfizer Corporation's new lab is registered for a Silver LEED rating. Contact: Deb Carling, (860)-715-6316

Third Party Load Management

allows municipalities to reduce electricity use in buildings during high peak times.

The City of New Haven entered into a third party load management agreement with a private energy company that allows the company to monitor power consumption for e.g., lighting and vending machines, so that during a spike in demand the company can reduce energy consumption in real time for these items, saving the city both money and energy.

For general information on this strategy contact:

- State of CT, Office of Policy and Management
John Ruckes, (860)-418-6384, john.ruckes@po.state.ct.us

Performance Contracting for Municipal Operations	<p>A municipality can participate in a performance contract by entering into a service agreement with a private energy service company. The company will identify and evaluate energy-saving opportunities and then recommend a package of improvements to be paid for through savings. The company will guarantee that savings meet or exceed annual payments to cover all project costs—usually over a contract term of seven to ten years. If savings don’t materialize, the company pays the difference, not the town. To ensure savings, the company offers staff training and long-term maintenance services.</p> <p>Fairfield, Derby, Stamford and New Haven are implementing performance contracting for their municipal operations.</p> <p>For more information on performance contracting visit this website of the Energy Services Coalition: www.escperform.org.</p>
CCM Energy Efficiency Program	<p>The Connecticut Council of Municipalities (CCM) Energy Efficiency Program provides detailed building energy analyses, replacements of outdated technology, state-of-the-art upgrades, design and engineering and commissioning of HVAC systems. For more information:</p> <p>Connecticut Council of Municipalities (CCM) For more information and assistance contact: Andy Merola, (203)-498-3056, amerola@ccm-ct.org</p>
Rebuild America	<p>Rebuild America is a network of hundreds of community-based partnerships across the nation that are saving energy, improving building performance, easing air pollution through reduced energy demand, and enhancing the quality of life through energy efficiency and renewable energy technologies. Created by the U.S. Department of Energy (DOE) in 1994, Rebuild America serves as a mechanism for revitalization and job creation in many U.S. communities.</p> <p>Rebuild America links municipalities with technical resources. For more information visit the DOE website www.rebuild.org or contact:</p> <ul style="list-style-type: none"> • State of CT, Office of Policy and Management John Ruckes, (860)-418-6384, john.ruckes@po.state.ct.us

ENERGY EFFICIENCY—Transportation

Transition to Alternatively Fueled Vehicles (AFV) in municipal fleet.

Clean Cities Program. Clean Cities is a program of the DOE. The program goal is to reduce petroleum consumption in the transportation sector. Clean Cities carries out this objective through a network of volunteer, community-based coalitions, which develop public/private partnerships to promote alternative fuels and vehicles, fuel blends, fuel economy, hybrid vehicles, and idle reduction. For more information: www.eere.energy.gov/cleancities/coordinators.html

- CT municipalities with AFV fleets and natural gas fueling stations are New Haven, Norwich and Fairfield.
- State of CT, Office of Policy and Management
John Ruckes, (860)-418-6384, john.ruckes@po.state.ct.us

Retrofit Diesel School Bus Fleet

Clean Buses for Kids--School districts that own their own school bus fleets will be eligible to apply for funding available this fall for school bus retrofit projects across the country. The funds are being provided through an enforcement case settlement EPA negotiated with the Toyota Motor Corp. Applications for funding are due in early November 2004.

- For more information and eligibility requirements contact the following website: www.cleanbusesforkids.com
Phone (703)-934-3040

The municipalities of Norwich, New Haven, and Bridgeport, in partnership with CT DEP and the Northeast States for Coordinated Air Use Management (NESCAUM) have retrofitted school bus fleets with emission control technology complemented by ultra-low sulfur diesel fuel or conversion to compressed natural gas.

- For information on these programs, contact
CT Department of Environmental Protection
Tracy Babbidge, (860)-424-3027, tracy.babbidge@po.state.ct.us

Best Workplaces for CommutersSM —

commuter incentive program
started by the EPA and US
Department of Transportation
(DOT)

Best Workplaces for CommutersSM is a new public-private sector voluntary program advocating employee commuter benefits. According to the program website, the average employer with 1,000 employees that qualifies for Best Workplaces for CommutersSM can take credit for reducing travel by over 1 million miles per year, saving over 50,000 gallons of gasoline per year, and cutting global warming emissions by more than 460 metric tons per year.

The South Western Regional Planning Agency, Stamford, CT has joined as well as about 20 private companies in Hartford, Fairfield and New Haven counties. For more information about how to get on the Best Workplaces for CommutersSM list:

- EPA website www.bwc.gov/
- SACIA, The Business Council of Southwestern Connecticut
Chris Bruhl, (203)- 359-3220, www.sacia.org

RENEWABLE ENERGY

Renewable or “clean” energy

investments can result in energy savings, reductions in greenhouse gas emissions and money savings for municipalities.

Smart Power is a non-profit resource founded to promote clean energy and working to increase the percentage of electricity produced by renewables to 20%.

For more information, contact:

- Brian Keane, Executive Director,
(860)-249-7040, bkeane@smartpower.org, www.smartpower.org

Connecticut Clean Energy Fund invests in enterprises and initiatives that will help make the state an international leader in the development, production and use of energy from clean and renewable sources. For more information, contact:

- Bryan Garcia, Program Director
(860)-563-0015, Bryan.Garcia@ctinnovations.com,
www.ctcleanenergy.com

Solar energy and photovoltaic cells

Solar Connecticut is a new organization that promotes solar applications in municipal, residential and commercial settings. For information on photovoltaic cells and other solar applications in Connecticut see their website: www.uhweb.hartford.edu/solarinfo/

Connecticut Clean Energy Fund funds solar projects. For information:

- CT Clean Energy Fund
Charlie Moret (860)-563-0015 X282, www.ctcleanenergy.com

20% by 2010 Renewable Energy Campaign

Smart Power sponsors the **20% by 2010** campaign along with a number of organizations. The campaign seeks commitments from government, institutions, and individuals to obtain 20% of their electricity from clean energy sources by the year 2010. In particular it encourages the purchase of Renewable Energy Certificates to put clean energy in use. The City of New Haven was the first municipality to join the campaign in February 2004. Portland, Fairfield and West Hartford have all passed resolutions joining the campaign. For more information, contact:

- Brian Keane, (860)-249-7040, bkeane@smartpower.org
www.smartpower.org

By Executive Order dated April 2004, Governor Rowland committed state buildings and universities to “20% by 2010.”

RENEWABLE ENERGY, continued

Biodiesel Heating—

produces fewer harmful emissions during production and combustion, contributes virtually no carbon dioxide to the atmosphere.

Producing and using fuels from renewable organic sources, such as forestry and agricultural waste, wood and food-processing waste and municipal solid waste is much better for the environment than burning fossil fuels.

No. 2 heating oil, a product refined from crude oil, is used as a heating fuel in the New England states and is a liquid fuel compatible with biodiesel. A blend of 20% biodiesel continues to be used by the Warwick School Department in Rhode Island following a one-year field test where 10%, 15% and 20% blends of biodiesel were demonstrated to be an overwhelming success. For more information, contact:

- Town of Warwick RI
Robert Cerio, Energy Educator/Manager,
(401)-734-3219, ext 320, ccerrior@wpsadmin.org

Other contacts:

- Northeast Regional Biomass Program, www.nrbp.org
- CT Dept. of Environmental Protection, Connie Mendolia,
(860)-424-3243, connie.mendolia@po.state.ct.us

Methane Landfill Extraction

The Connecticut Clean Energy Fund provides funds to municipalities and other jurisdictions to develop environmentally beneficial landfill gas (LFG) energy projects while providing a cost-effective and readily available source of clean energy. Converting LFG to an energy source offsets the need for non-renewable resources such as coal and oil, and thereby reduces emissions of air pollutants such as sulfur dioxide, a major contributor to acid rain, from combustion of conventional resources.

Using LFG also helps to reduce unpleasant odors and explosion threats associated with LFG emissions, and it helps prevent methane, one of the most potent greenhouse gases, from migrating into the atmosphere and contributing to local smog and global climate change. For more information contact:

- Connecticut Clean Energy Fund
Keith Frame, (860)-653-0015, ext. 287,
kframe@ctinnovations.com www.ctcleanenergy.com

Fuel Cell Applications

For information on funding fuel cell projects contact:

- Connecticut Clean Energy Fund
Karen Mendes, (860)-653-0015 ext. 285,
kmendes@ctinnovations.com www.ctcleanenergy.com

OTHER GREENHOUSE GAS REDUCTION STRATEGIES AND CAMPAIGNS

ICLEI— International Council for Local Environmental Initiatives

ICLEI

The International Council for Local Environmental Initiatives (ICLEI) sponsors the Cities for Climate Protection (CCP) Campaign. For more information on the campaign and milestones as well as participating towns in CT contact:

- Melissa Royael, ICLEI, CCP, (510)-540-8843, ext. 314, www.iclei.org

Connecticut Climate Change Initiative

The CT Steering Committee on Climate Change, including staff from CT Clean Energy Fund, and state agencies such as the DEP, DOT, DAS, OPM, and DPUC worked with stakeholders from government, businesses, towns, academia and non-profits to complete the Climate Change Stakeholder Dialogue and Recommendations. The state's climate change website is a resource for all sectors.

For information on the initiative or coordination with municipalities contact:

- CT Department of Environmental Protection (DEP)
Lynn Stoddard, (860)-424-3236, lynn.stoddard@po.state.ct.us
Connie Mendolia, (860)-424-3243, connie.mendolia@po.state.ct.us
- CT Clean Energy Fund
Bryan Garcia, (860)-563-0015, bryan.garcia@ctinnovations.com

The official CT Climate Change website address is:
www.ctclimatechange.com

<p>Increase Recycling and Source Reduction --programs that reduce the amount of waste being put in landfills and/or waste-to-energy facilities reduce the amount of generated methane and CO₂, as well as emissions produced by using virgin materials.</p>	<p>Recycling A list of CT towns with exemplary recycling programs is on the DEP website at: www.dep.state.ct.us/wst/recycle/munihonor.htm</p> <p>For further information and contacts please call: Judy Belaval, CT DEP, (860)-424-3237, judy.belaval@po.state.ct.us</p> <p>Pay-As-You Throw Waste Reduction Programs In towns with “Pay-As-You-Throw” programs individual households are charged for waste collection based on the amount of waste they throw away --in the same way that they are charged for electricity, gas, and other utilities. Pay-as-You-Throw programs provide incentives for residents to not only reduce the garbage they generate (source reduction), but to increase the amount they recycle. Reducing waste and increasing recycling are two ways municipalities can help reduce green house gases.</p> <p>The following municipalities have Pay-As-You-Throw programs: Coventry, Killingly, Lebanon, Mansfield, Portland, Putnam, Sprague, Sterling/Voluntown, Stonington, and Wilton.</p> <p>For more information about these programs contact:</p> <ul style="list-style-type: none"> CT Department of Environmental Protection Nan Peckham, (860)-424-3357, nan.peckham@po.state.ct.us Judy Belaval, (860)-424-3237, judy.belaval@po.state.ct.us www.dep.state.ct.us/wst/recycle/newpayt.htm
<p>Urban Tree Planting Program</p>	<p>Properly planted trees in urban areas can decrease energy use by reducing wind speed in winter and by shading buildings and lowering air temperatures in summer. Tree planting and maintenance by municipalities is an on-going initiative of many communities throughout the state. In addition a number of towns have received grants through the CT DEP that administers the America the Beautiful grant program. For more information on this grant program</p> <ul style="list-style-type: none"> CT DEP Urban Forestry Program Chris Donnelly, (860)-424-3178, chris.donnelly@po.state.ct.us www.dep.state.ct.us/burnatr/forestry/urbanforest/urbanfor.htm
<p>Environmentally Preferable Products and Services</p>	<p>To purchase environmentally preferable products and services through the State, contact:</p> <ul style="list-style-type: none"> CT Department of Administrative Services Barbara Moser, (860)-713-5081, bmoser@po.state.ct.us www.das.state.ct.us/Purchase/Epp/Index.htm.

<p>Expand Bicycle and Pedestrian Infrastructure and Promote Bike-to-Work</p>	<p>The Capitol Region Council of Governments (CRCOG) is the 29 town regional planning agency for the Greater Hartford region. CRCOG sponsors a very successful regional program to promote bicycling as a commuter option in the Capital region. A number of municipalities have been commended for their actions to expand the bicycle infrastructure in their communities by providing bicycle lanes.</p> <p>For more information:</p> <ul style="list-style-type: none"> Capitol Region Council of Governments (CRCOG) Sandy Fry, (860)-522-2217, sfry@crcog.org www.crcog.org/Bicycle/bicycle.htm <p>Several other websites have information about bike-to-work programs.</p> <p>www.americabikes.org/default.asp</p> <p>www.bicyclinginfo.org/</p> <p>www.bikesbelong.org/site/index.cfm?Loader1</p> <p>www.bikeleague.org/index.cfm</p> <p>www.transact.org/</p>
<p>OTHER RESOURCES</p>	
<p>Energy Websites</p>	<p>Connecticut Energy Advisory Board and Energy Plan for CT: www.ctenergy.org</p> <p>Northeast Sustainable Energy Association: www.nesea.org</p> <p>For energy events in CT: www.ctclimatechange.com/news.html</p>